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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/622,801

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Amir Belson

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3484

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09/07/2006

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EXAMINER

LEUBECKER, JOHN P

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,801

Applicant(s)

BELSON ET AL.

Examiner

John P. Leubecker

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 2-4, 6-9, 11 and 13-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi et al. (U.S. Pat. 6,511,417) for the reasons set forth in numbered paragraph 7 of the previous Office Action, paper number 03172006.

As to the newly added language, the term “selectively steerable” as describing the plurality of segments does not necessarily require that each individual segment include structure to induce steering in each segment separately, and therefore, at least broadly encompasses a single steering structure that is “selected” to steer all “segments” of the body at one time. Even still, the Examiner contends that not all segments in the steerable portion of any “conventional endoscope” (e.g., Taniguchi) will move simultaneously with the steering mechanism (assuming a conventional steering mechanism, e.g., wires) but rather will begin to move from distal to proximal end as steering force is applied. This, to Examiner, is selective application of steering force to separate portions (segments) of the bending section, as broadly and reasonably as this term can be interpreted.

However, it is understood from the interview (held on May 6, 2002) that Applicant intended for the term “selectively steerable” to be read more narrowly, i.e., to imply separate structure for steering each individual segment. In an effort to advance prosecution, the rejection below will address the claims as if they required such narrow interpretation.

As to new claim 20, inherently, at least one transponder will be in at least one segment.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 2-9, 11 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehana et al. (U.S. Pat. 4,930,494) in view of Taniguchi et al. (U.S. Pat. 6,511,417).

Takehana et al. disclose a system for inserting an instrument into a body cavity comprising an instrument (endoscope, col.7, lines 4-10) having an elongate body (1, Fig.1) and a selectively steerable distal end, and defining a lumen therebetween (inherent in any endoscope, specifically shown in Figure 61 as tube 234), the elongated body comprising a plurality of selectively steerable segments¹ (3a-3e, Fig.1, note col.9, lines 31-43). Takehana et al. fails to disclose a plurality of transponders located on the elongated body, each having a signature and an external navigation unit, as claimed in claim 2, and the steps of tracking the position of a transponder and displaying such position, as claimed in claim 11.

However, Taniguchi et al. teaches the use of an endoscope shape detection system including a plurality of transponders (14i) located on the elongated body of an endoscope (col.12, lines 35-38), each of the transponders having a signature (col.12, lines 38-41) and an external navigation unit (22k, 25-28, Fig.3) for detecting the signature and position of each of the transponders (col.12, lines 37-44 and col.13, lines 35-45). In addition, with use of the above mentioned structure, Taniguchi et al. teaches the steps of tracking the position of the

Art Unit: 3739

transponders and displaying the position (col.13, lines 46-57). Taniguchi et al. teaches that such structure and use thereof makes it “possible to readily grasp the positional relationship between the shape of the insertion unit of an endoscope and the exterior of a body cavity” (col.3, lines 15-20).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the shape detection system of Taniguchi et al. in the system of Takehana et al. for the reasons taught by Taniguchi et al. Even though Takehana et al. uses visual imaging at a leading segment to estimate a bending angle for that segment (col.8, lines 23-43), there is no way to confirm whether or not this bending angle (for which all other segments eventually follow) was adequate after advancement or if the trailing segments are operating in the proper manner. According to the teachings of Taniguchi et al., one would be able to positionally (in space) confirm the intended curvature of the segments and monitor the shape of all segments so as to ensure proper operation and prevent malfunctioning.

As to the remaining claims: as to claims 3, 4 and 6-9, note the combination of Takehana et al. and Taniguchi et al. would provide the claimed structure, as required by Taniguchi et al. and discussed in detail in numbered paragraph 8 of the previous Office Action, paper number 03172006. As to claim 5, Takehana et al. disclose a datum speculum (mouthpiece with sensor portion 5, col.7, lines 44-54) for producing a signal indicative of the axial position of the instrument. As to claims 13-15, both Takehana et al. and Taniguchi et al. disclose insertion of the endoscope through a “natural opening”, which, when inserted, will inherently be maneuvered around organs in a patients body. As to claim 16, the image of the position of the endoscope will

¹ Although, as pointed out in the rejection under 35 USC 102 over Taniguchi et al., the term “selectively steerable”

Art Unit: 3739

electronically mark the position. Furthermore, the data from the datum speculum allows one to know the axial position, and thus electronically marks this position. As to claims 17-19, Taniguchi et al. allows for a three-dimensional model to be formed from the instrument (stored in memory in 28, Fig.3) (col.28, lines 26-32), ensuring that the instrument automatically conforms to the model. Furthermore, the control system of Takehana et al. separately includes measured bending angles and axial position data (from datum speculum), which in its broadest interpretation, define a three-dimensional model, which is used to control the instrument (col.8, lines 52-59). As to claim 20, no matter how many transponders from Taniguchi et al. are used in the elongated body of Takehana et al., at least one will inherently fall within at least one of the segments.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being obvious over Taniguchi et al. for the reasons set forth in numbered paragraph 10 of the previous Office Action, paper number 03172006.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehana et al. in view of Taniguchi et al.

As mentioned above, Takehana et al. disclose a datum speculum. Both Takehana et al. and Taniguchi et al. disclose systems that perform the method steps as claimed for use, for example, in the gastrointestinal tract or alimentary canal and thus fail to mention the insertion of

does not necessarily require individual and separate steering structure for each segment, this interpretation will be assumed for the purposes of this rejection.

Art Unit: 3739

the endoscope through an incision. However, this would be obvious for the reasons set forth in numbered paragraph 10 of the previous Office Action, paper number 03172006.

Response to Arguments

7. Applicant's arguments filed June 23, 2006 have been fully considered but they are not persuasive.

Careful consideration has been given to Applicant's amendments to the claims and remarks corresponding to such. Although the term "selectively steerable" was discussed in the interview on May 2, 2006, after further consideration, and in the absence of any structural features to differentiate this capability as intended from the broadest reasonable interpretation of such term when applied to a "plurality of segments" as a whole, the Examiner has maintained the previous rejection over Taniguchi et al. See the rejection above for a further explanation of the Examiner's reasoning.

However, in the interest of furthering prosecution, and since claims 2 and 11 could easily be amended to include structural features to describe Applicant's intended interpretation of "selectively steerable", the Examiner would like to anticipate such amendments and address the claims as if they required structure that differentiated the claimed elongated body from that of Taniguchi et al. This is done in the rejection under 35 USC 103 using Takehana et al. and Taniguchi et al. After a review of the prior art, it was found that endoscopes with plural steering mechanisms for plural segments, each individually controlled, is known in the art, as disclosed by Takehana et al. Takehana et al. also evidences that a datum speculum as claimed has also been contemplated.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

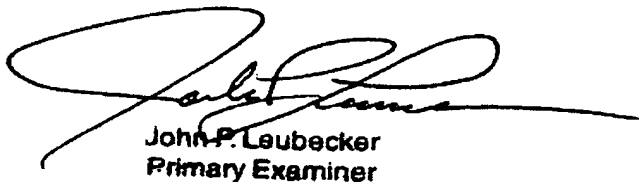
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3739

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John P. Leubecker
Primary Examiner

jpl